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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,150	12/29/2000	Roger Andersson	1846/01119	8176
3897	7590	08/11/2004	EXAMINER	
SCHNECK & SCHNECK P.O. BOX 2-E SAN JOSE, CA 95109-0005			AN, SHAWN S	
			ART UNIT	PAPER NUMBER
			2613	14
DATE MAILED: 08/11/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,150

Applicant(s)

ANDERSSON ET AL.

Examiner

Shawn S An

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-19, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. As per Applicants' instruction in Paper 11 as filed on 5/17/04, claims 1, 6-7, 12-13, and 23 have been amended.

Note: The Examiner has withdrawn all of the objections regarding the specification, the drawings, and the claim objection, since Applicants' made all of the necessary corrections.

Response to Remarks

2. Applicants' arguments with respect to claims 1 and 12 have been carefully considered but are moot in view of the new ground(s) of rejection incorporating the previously cited prior art references.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 11-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5,917,830) in view of Larson et al (4,646,287).

Regarding claims 1 and 12, Chen et al discloses an apparatus/method for splicing data streams in MPEG transport streams, the apparatus/method comprising:
means (Fig. 4, 405) for receiving a first input transport stream of first data packets;

means (410) for receiving a second input transport stream of second data packets to replace selected first data packets (splicing) in the first stream;

means for extracting for each data packet a time reference (Fig. 4, PCR);

means (415, 420, 425) for establishing for each data packet a control data object storing the time references;

means (405) for establishing for ordered sets of the first data packets corresponding ordered sets of control data object (frames);

means (415) for establishing for ordered sets of the first data packets corresponding ordered sets of control data object storing information pertaining to different logical structures of higher level than the data packets such as frames, sequence of frames, and packetized elementary stream packets (PCR, DTS, R_v);

means (425) for queuing the control data object in different queues dependent on the data packet status or on the status of a group of data packets;

means (475) for selecting from the queues control object associated to data packets to be output in an output stream of data packets;

means for (470) assembling selected control object to a program associated data packets of different data;

means for (Fig. 3, 300) assembling data packets associated to the selected and assembled control data object to an output stream (OS) of data packets;

means (475) for outputting the assembled stream (OS) of data packets.

Chen et al does not specifically disclose means for extracting for each data packet, a packet status information indicating the syntactic function of the data packet, and means for establishing for each data packet another control data object including the data packet status information.

However, Larson et al teaches a packet switching system comprising means for extracting for each data packet, a packet status information (idle packet) indicating the syntactic function of the data packet, and means for establishing for each data packet another control data object including the data packet status information (abs.).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing an apparatus/method for splicing data streams as taught by Chen et al to

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incorporate the well known concept of data packets comprising another control object including idle (status) packets as taught by Larson et al for an efficient way to splice data bitstreams by utilizing the control data objects and also to handle packet transmission accurately.

Regarding claims 2 and 13, Chen et al discloses padding packets (430) to fill out unutilized space in terms of free bandwidth of the output transport stream.

Regarding claims 3 and 14, Chen et al discloses means for using control objects (PCR, DTS, R_v) to generate control information for operating on associated data packets.

Regarding claims 4 and 15, Larson et al teaches disclose means (804, 806) for marking data packets as available (normal packet) or non available (idle packets) for replacement, and means (1420) for leaving non-available packets intact and reassembled into the output stream of data packets (abs.).

Regarding claims 5 and 16, Chen et al discloses means for operating on different layers of the transport streams generating different levels of abstraction of control data objects (col. 8, lines 21-29).

Regarding claims 6-7 and 17-18, Chen et al discloses means for genlocking to an encoder clock of a received first/second input TS, wherein some packets include a PCR (Fig. 4); and

means (425) for determining an arrival time in the shape of local clock reference of every transport stream packet in the incoming first input TS, wherein the local clock reference carries information about which positions within a transport stream stream at which all its TS packets arrived.

Regarding claims 8 and 19, Chen et al discloses means (425) for translating time base of the second TS to the time base of the first TS.

Regarding claims 11 and 22, Chen et al discloses means for controlling buffer violations in the decoder by using free bandwidth in empty packets in first TS (430) to reschedule transport packets thereby preventing overflow or underflow in the decoder buffers (485).

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5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al in view of Wine et al (6,137,834) and Larson et al (4,646,287).

Regarding claim 23, Chen et al discloses all of the claimed subject matter as discussed above with the exception of:

a computer program product for performing splicing functions;

means for extracting for each data packet, a packet status information indicating the syntactic function of the data packet; and

means for establishing for each data packet a control data object including the data packet status information.

However, Larson et al teaches a packet switching system comprising means for extracting for each data packet, a packet status information (idle packet) indicating the syntactic function of the data packet, and means for establishing for each data packet another control data object including the data packet status information (abs.).

Furthermore, Wine et al teaches splicing apparatus incorporating a computer system that is programmed to perform the splicing functions (col. 2, lines 48-58).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing an apparatus/method for splicing data streams as taught by Chen et al to incorporate the well known concept of data packets comprising another control object including the idle (status) packet as taught by Larson et al for an efficient way to splice data bitstreams by utilizing the control data objects and also to handle packet transmission accurately, and also incorporate the well known concept of a computer system that is programmed to perform the splicing compressed bitstreams as taught by Wine et al, thereby significantly saving operating costs associated with the hardware.

Allowable Subject Matter

6. Claims 9-10 and 20-21 are objected to as being dependent upon a rejected base claims 1 and 12, respectively, but would be allowable: if claim 9 or claim 10 is rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims; and if claim 20 or claim 21 is rewritten in independent form including all of the limitations of the base claim 12 and any intervening claims.

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Dependent claims 9-10 and 20-21, each recites novel features as discussed previously.

The art of records fail to anticipate or make obvious the novel features as specified in the dependent claims 9-10 and 20-21. Accordingly, if the amendments are made to the claims listed above, and if rejected claims are canceled, the application would be placed in condition for allowance.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

A) Gable et al (6,151,443), Digital video and data recorder.

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Shawn S An whose telephone number is 703-305-0099. The Examiner can normally be reached on Flex hours (10).

9. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SSA

Primary Patent Examiner

8/6/04